

REMARKS

Favorable reconsideration is respectfully requested in light of the above amendments and the following comments. The claims have been amended to correct minor errors. Claims 1 and 20 have been amended to include the limitations previously found in claims 3 and 21, respectively. Claims 3 and 21 have been cancelled. No new matter has been added as a result of these amendments.

Applicant respectfully traverses the Examiner's rejection of claims 1 and 3-25 under 35 U.S.C. § 103(a) as unpatentable over Shimo et al., U.S. Patent No. 6,297,636, or Nakabayashi, U.S. Patent No. 5,028,872, in view of Richard et al., EP 0 724 161 A1. Applicant respectfully submits that the Examiner has failed to properly establish a *prima facie* case of obviousness. In particular, Applicant respectfully submits that the cited combination fails to disclose each and every claimed element, and thus for at least this reason, the present rejection is flawed and should be withdrawn.

The claimed invention requires that the electrical component of the RF magnetic field be substantially uniform (claim 1) or uniform (claim 20) around all of a sample volume that is defined by the RF magnetic field coil and the RF magnetic shield. The Examiner points to Figures 1A and 1C of Nakabayashi as disclosing a sample volume. However, none of the references, Nakabayashi included, appear to disclose a sample volume having a uniform electrical component around all of the sample volume. Thus, a claimed element is not disclosed by the cited references, and therefore, the rejection should be withdrawn.

Moreover, the Examiner has asserted that the RF shield described by Richard et al. inherently meets the claimed limitation of "such that the electrical component tangent to the shield is other than zero and the magnetic component perpendicular to the shield is essentially zero", as this feature is inherently found in "that kind of RF magnetic shields conventionally used in MRI apparatus". Applicant respectfully disagrees.

In particular, Richard et al. describe conductive strips that are arranged on either side of a dielectric layer and that are offset such that each strip is capacitively coupled to two strips on the other side of the dielectric layer. Richard et al. note that "The radio frequency coil induces radio or megahertz frequency eddy currents to which the capacitive coupling appears as a short circuit" (Abstract, as cited by the Examiner). Indeed, Applicant's background section (page 3 of the

instant specification) describes U.S. Patent No. 4,642,569 to Hayes et al. as an example of this feature. Neither Hayes et al. nor Richard et al. teach the claimed invention.

Once again, the cited combination fails to describe each and every claimed element. For at least this reason, the *prima facie* obviousness case has not been properly established, and therefore, the rejection should be withdrawn. Favorable reconsideration is respectfully requested.

Claims 2, 4-19 and 22-25 depend directly or indirectly from claims 1 or 20. For the reasons discussed above, and because these claims recite additional elements, they are believed patentable.

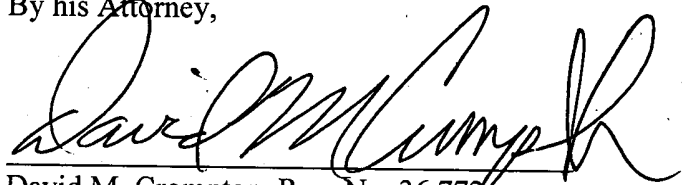
Applicant respectfully traverses the Examiner's rejection of claim 2 under 35 USC § 103(a) as unpatentable over Shimo et al., U.S. Patent No. 6,297,636, in view of Nakabayashi, U.S. Patent No. 5,028,872, and Richard et al., EP 0 724 161 A1, and further in view of Sakakura et al., U.S. Patent No. 5,396,173. Shimo et al., Nakabayashi and Richard et al. are distinguished above as failing to teach the invention of claim 1. Claim 2 depends from claim 1 and adds additional elements. Thus, claim 2 is similarly patentable over the cited references as Sakakura et al. fail to remedy the noted shortcomings of the other references. Favorable reconsideration is respectfully requested.

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Cecil E. Hayes

By his Attorney,



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